

In the Specification

Please amend the specification as follows:

Please substitute the following paragraph for the paragraph that begins at page 14, line 22.

Fig. 3 shows the titration of MAGE-A1 peptides in lysis experiments using CTL clone 7. The peptides used were: EADPTGHSY (SEQ ID NO:8), KEADPTGHSY (SEQ ID NO:9) and ADPTGHSY (SEQ ID NO:10), DPTGHSYVL (SEQ ID NO:7) and DPTGHSYVLV (SEQ ID NO:6).

Please substitute the following paragraph for the paragraph that begins at page 14, line 32.

Fig. 7 shows the MAGE-A1 epitope presented by HLA-B\*4402 is encoded by the MAGE-A1 fragment having nucleotides 481-507. Three minigenes were tested. Minigene 1 (SEQ ID NO:11) contains nucleotides 442 to 507 of the MAGE-A1 cDNA joined to a 5' ATG codon and a 3' TGA codon), and encodes the peptide MSES LQLVFGIDVKEADPTGHSY (SEQ ID NO:12). Minigene 2 (SEQ ID NO:13) contains nucleotides 481 to 507 of the MAGE-A1 cDNA joined to 5' ATG and 3' TGA codons and encodes the peptide MEADPTGHSY (SEQ ID NO:14). Minigene 3 (SEQ ID NO:15) contains nucleotides 484 to 507 of the MAGE-A1 cDNA joined to 5' ATG and 3' TGA codons, and encodes the peptide MADPTGHSY (SEQ ID NO:16).

Please substitute the following paragraph for the paragraph that begins at page 15, line 7.

Fig. 11 shows the titration of MAGE-A3 peptides in lysis experiments using CTL clone 41. The peptides used were: EVDPIGHL Y (SEQ ID NO:56), MEVDPIGHL Y (SEQ ID NO:59), MEVDPIGHL YIFATCL (SEQ ID NO:57) and DPIGHL YIF (SEQ ID NO:58).

Please substitute the following paragraph for the paragraph that begins at page 21, line 1.

Localization of one or more antigenic peptides in a protein sequence can be aided by HLA peptide binding predictions made according to established rules for binding potential (e.g., Parker et al, *J. Immunol.* 152:163, 1994; Rammensee et al., *Immunogenetics* 41:178-228, 1995). HLA binding predictions can conveniently be made using algorithms available via the Internet on the National Institutes of Health World Wide Web site (bimas.dcrn.nih.gov) and the HLA site of Prof. Rammensee at the University of Tübingen (<http://134.2.96.221/scripts/hlaserver.dll/EpPredict>).

Please substitute the following paragraph for the paragraph that begins at page 24, line 27.

It will also be understood that the invention embraces the use of the sequences in expression vectors, as well as to transfect host cells and cell lines, be these prokaryotic (e.g., *E. coli*), or eukaryotic (e.g., dendritic cells, CHO cells, COS cells, yeast expression systems and recombinant baculovirus expression in insect cells). The expression vectors require that the pertinent sequence, i.e., those described herein, be operably linked to a promoter. In addition, as it has been found that human HLA-B35 and HLA-B44 molecules present MAGE-A1 HLA class I binding peptides, and that HLA-B35 molecules present MAGE-A3 HLA class I binding peptides, the expression vector may also include a nucleic acid sequence coding for a HLA-B35 or a HLA-B44 molecule. (For other class I or class II binding peptides, different HLA molecules can be used.) In a situation where the vector contains both coding sequences, it can be used to transfect a cell which does not normally express either one. The MAGE HLA class I binding peptide coding sequence may be used alone, when, e.g. the host cell already expresses a HLA-B35 or a HLA-B44 molecule. Of course, there is no limit on the particular host cell which can be used as the vectors which contain the two coding sequences may be used in host cells which do not express HLA-B35 or a HLA-B44 molecules if desired, and the nucleic acid coding for the

MAGE HLA class I binding peptide can be used in antigen presenting cells which express an appropriate HLA-B35 or a HLA-B44 molecule. As used herein, "a HLA-B35 molecule" includes the subtypes HLA-B\*35011, B\*35012, B\*3502, B\*3503, B\*3504, B\*3505, B\*3506, B\*3507, B\*3508, B\*35091, B\*35092, B\*3510, B\*3511, B\*3512, B\*3513, B\*3514, B\*3515, B\*3516, B\*3517, B\*3518, B\*3519, B\*3520, B\*3521, B\*3522, B\*3523, B\*3524, B\*3525, B\*3526, B\*3527, B\*3528, B\*3529, B\*3530, B\*3531, B\*3532, B\*3533, B\*3534, B\*3535, B\*3536, B\*3537. As used herein, "a HLA-B44 molecule" includes the subtypes HLA-B\*4401, B\*44021, B\*44022, B\*44031, B\*44032, B\*4404, B\*4405, B\*4406, B\*4407, B\*4408, B\*4409, B\*4410, B\*4411, B\*4412, B\*4413, B\*4414, B\*4415, B\*4416, B\*4417, B\*4418, B\*4419N, B\*4420, B\*4421, B\*4422, B\*4423N, B\*4424. HLA-B35 and -B44 molecules also include the subtypes which can be found in Bodmer et al., *Tissue Antigens* 49:297, 1996. A listing of presently identified HLA-B35 and -B44 subtypes can be found on the IMGT/HLA database at internet URL <http://www.ebi.ac.uk/imgt/hla/>.

Please substitute the following paragraph for the paragraph that begins at page 51, line 32.

To identify the MAGE-A1 peptide recognized by CTL clone 7, a set of peptides of 12 amino acids, that overlapped by 8 amino acids and covered the entire MAGE-A1 protein sequence, was screened. Autologous EBV-B cells were distributed in microwells (10,000 cells per well), incubated with each of these peptides at a concentration of 2 µg/ml in 50 microliters, not washed and CTL clone 7 (2,000 CTLs per microwell) was added in 50 microliters. Recognition of the antigen by the CTLs was measured by the production of IFN $\gamma$  in an ELISA assay using standard techniques. Peptide EADPTGHSYVLV (SEQ ID NO:5; MAGE-A1 amino acids 161-172) scored positive. The sequence of this peptide was screened for prediction of a HLA-B3501 binding peptide with the software available on the internet at [http://bimas.dcrn.nih.gov/molbio/hla\\_bind/index.html](http://bimas.dcrn.nih.gov/molbio/hla_bind/index.html). Peptides DPTGHSYVLV (SEQ ID NO:6) and DPTGHSYVL (SEQ ID NO:7) had the highest score. These peptides, as well as peptides EADPTGHSY (SEQ ID NO:8), KEADPTGHSY (SEQ ID NO:9) and ADPTGHSY (SEQ ID NO:10), were tested in a cytotoxicity assay with CTL clone 7 (Fig. 3).